



# NIST Cloud Computing Forum and Workshop VIII

## **Recommendations for Cloud Computing adoption: where are we?**

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# NIST Cloud Computing Forum and Workshop VIII

## Cloud Standards Coordination

# Cloud Standards Coordination

## (phase 1)



**Cloud Standards Coordination**

**Final Report**

**November 2013**

**VERSION 1.0**

NO  
Jungle of  
Standards

Enough  
Standards  
to start with

Despite new  
standards  
coming, some  
gaps  
identified

Foster  
collaboration  
to ensure no  
fragmentation  
happens

<http://csc.etsi.org>

# Cloud Standards Coordination

## phase 2

- Builds on the findings of Cloud Standards Coordination in 2013
  - CSC (phase 1) launched by European Commission & ETSI
  - Focus on Standards Landscaping (with a Service Providers view)
- Focusing on the user needs and viewpoint
  - Testing them against users' feedback
  - Digging further into users' needs—specify/qualify concerns
- Addressing the main issues outlined at the end of CSC phase 1
  - **Identification of users priorities: a survey**
  - Interoperability, Certification, Security
  - Standards and Open Source
  - Cloud Computing standardization maturity assessment (take 2)

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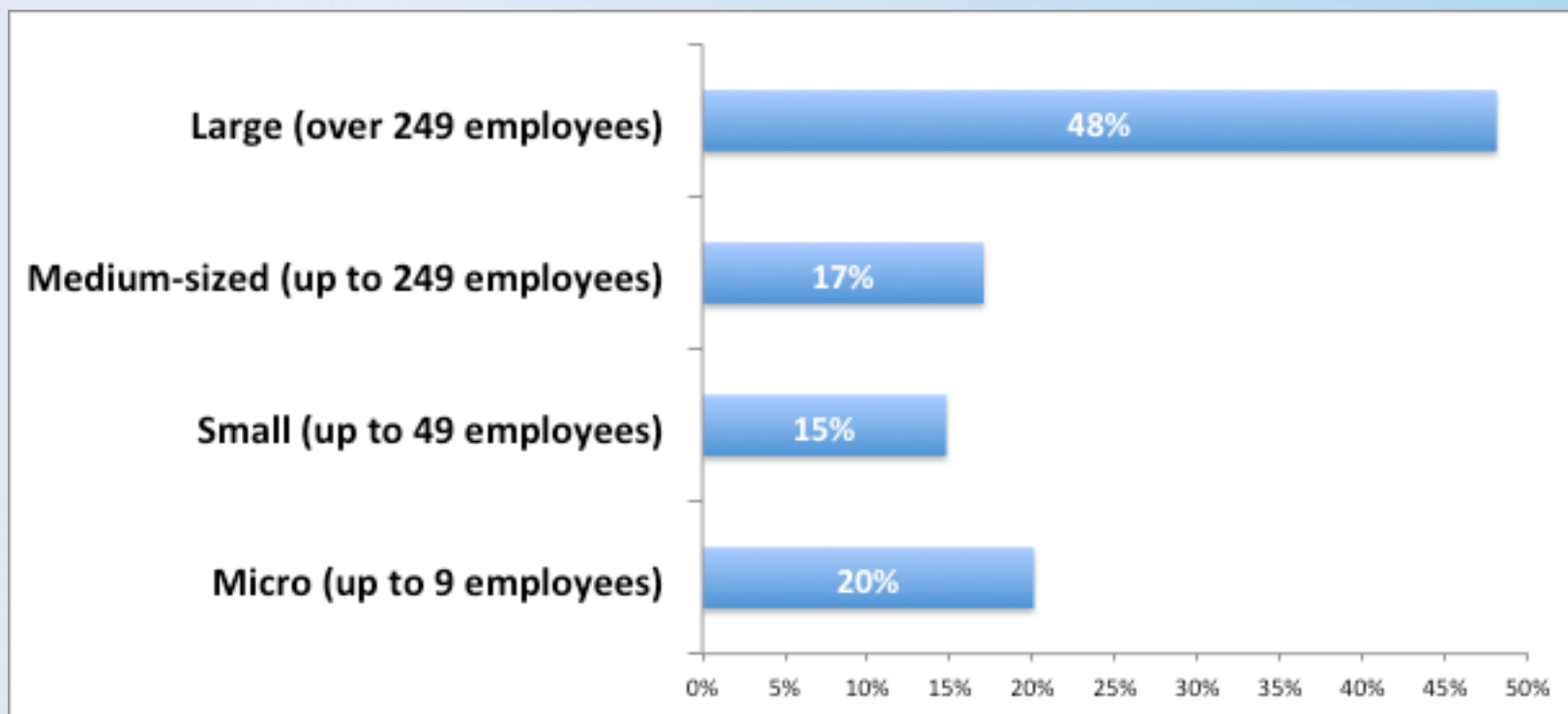
## A users' view

With some focus on standards

# Identification of Cloud Computing User Needs

- Objectives
  - To collect and analyze (via a survey) the feedback from the users
    - To understand the needs of the CC users community
    - To identify their highest priority (existing or new) use cases
    - To ensure that their priorities are taken into account in standardization.
  - To further refine the Phase 1 report conclusions.
- User Survey
  - On-line on March 30<sup>th</sup>: <http://csc.etsi.org/phase2/survey.html>
    - Will remain open until September 18<sup>th</sup>
- Output: an ETSI Special Report
  - Report v1.0.0: June 24, 2015
  - Public review: until September 18, 2015
  - Final Report v2.0.0: October 15, 2015

## Size of your organization?

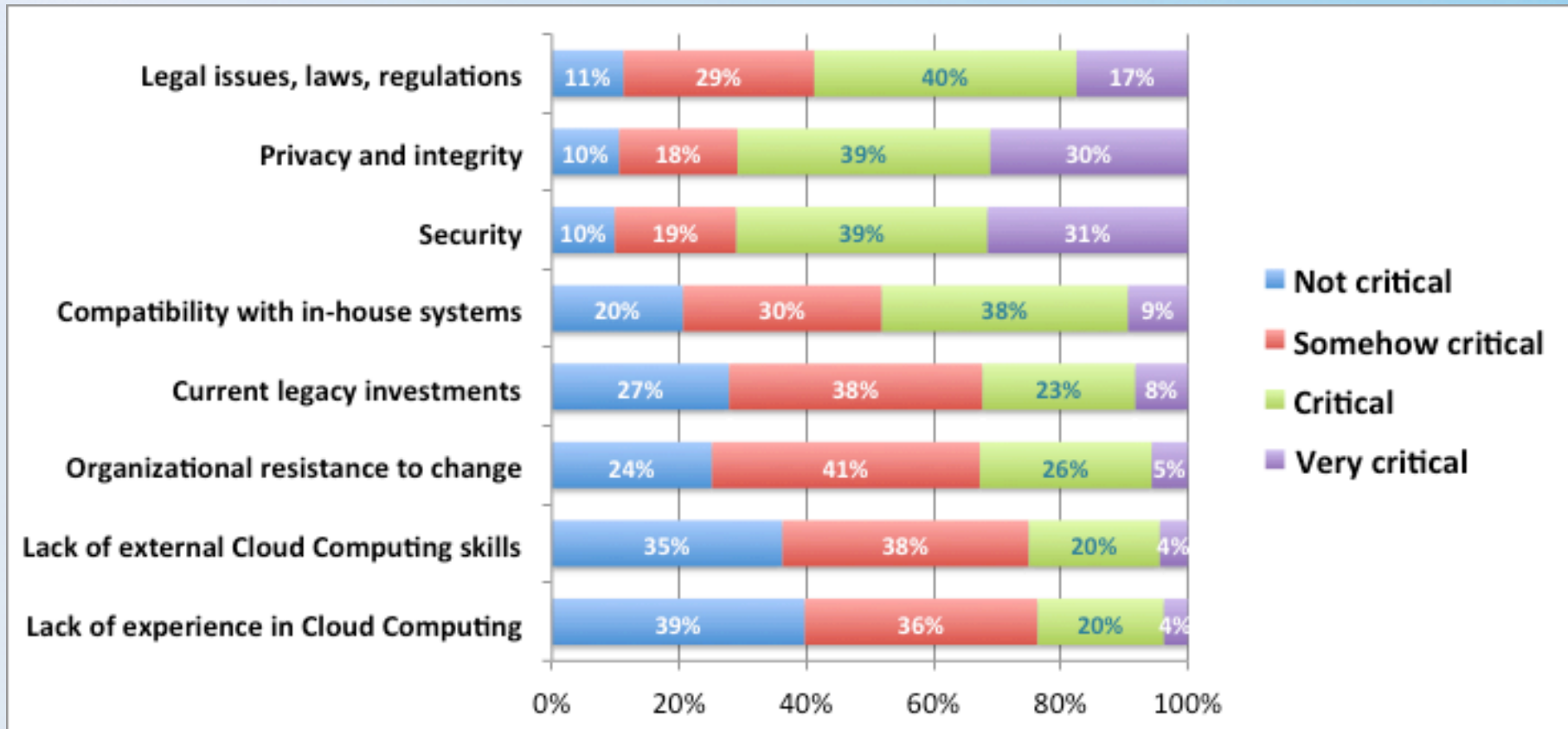


# Trends and patterns

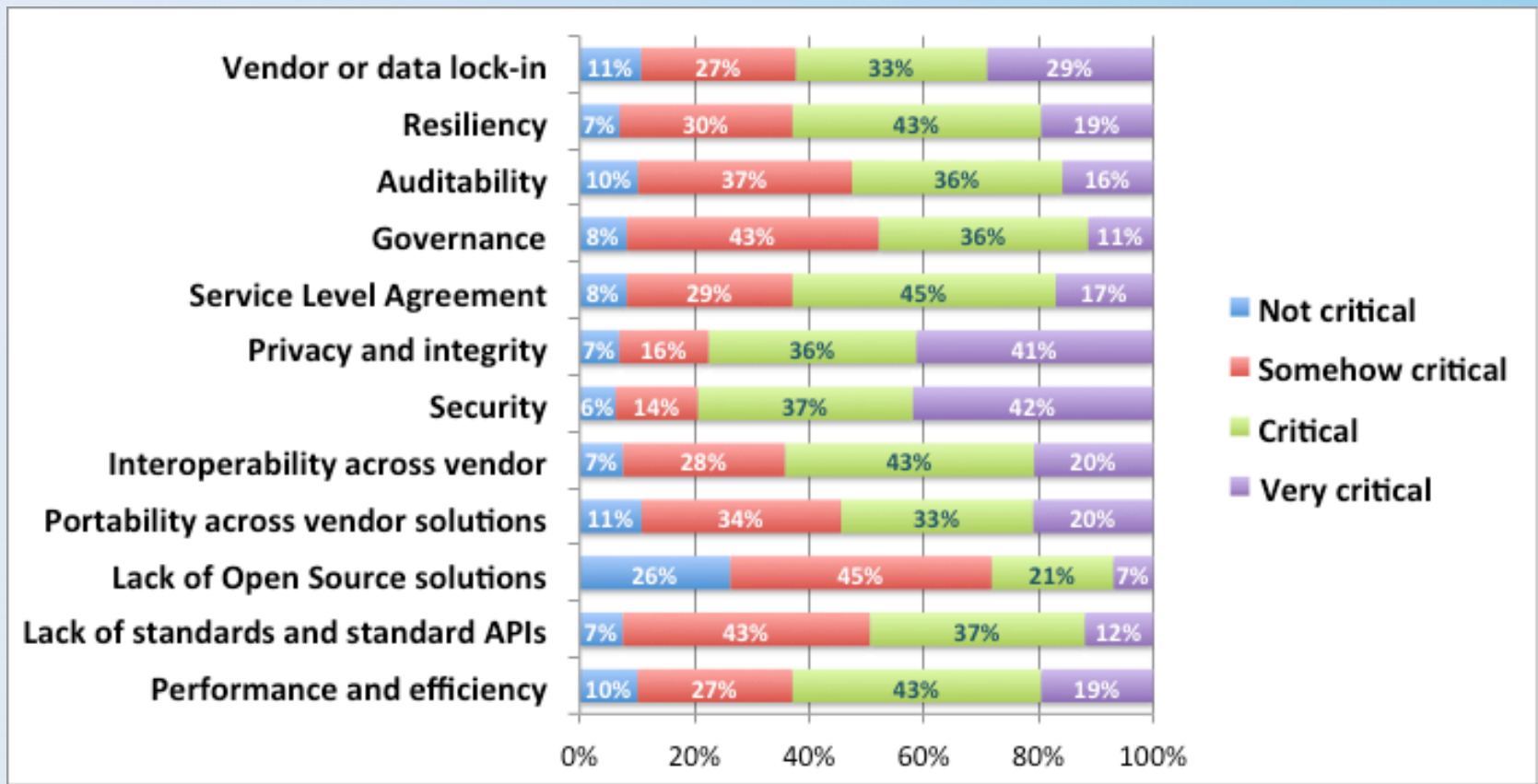
- Security and Data Privacy are seen as major concerns
  - Not a new finding but a clear indication on perceived challenges ahead
    - for security standards and Cloud certification in particular.
- Interoperability is also ranked high
  - Most likely linked to vendor lock-in and the lack of portability standards for cross-Cloud scenarios.
- Transition to Cloud Computing
  - High perception that it should be carefully planned and organized
    - in particular regarding data (classification, storage, etc.), processes and security
- Role of standards
  - It is seen as important and there is already a high level of awareness
    - to a smaller extent even in terms of knowledge on the existing set of standards.
  - Benefit from Cloud standards is seen higher than Open Source

## Survey Results - Question 9

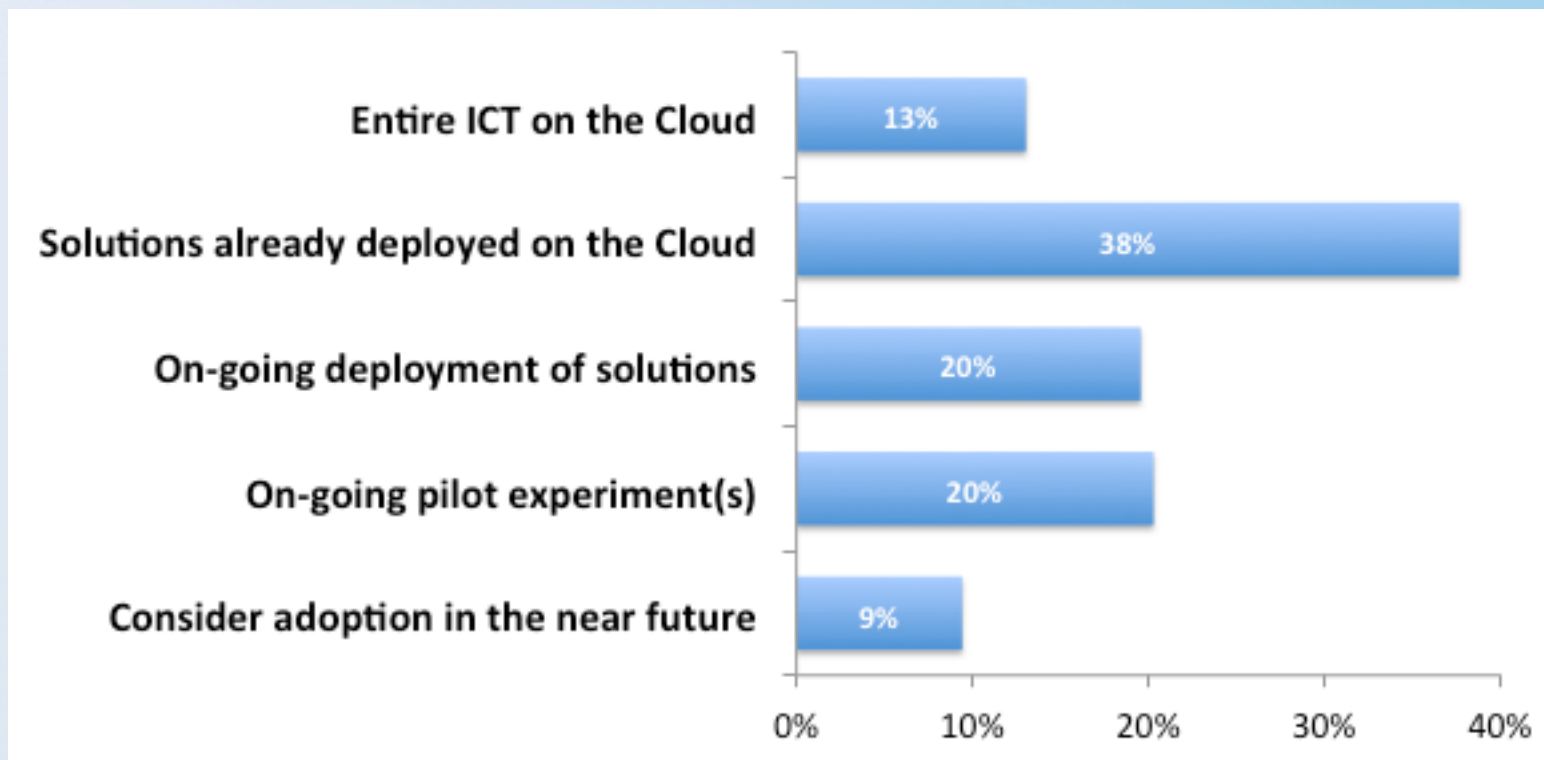
# Maturity of your organization: how critical are the following challenges?



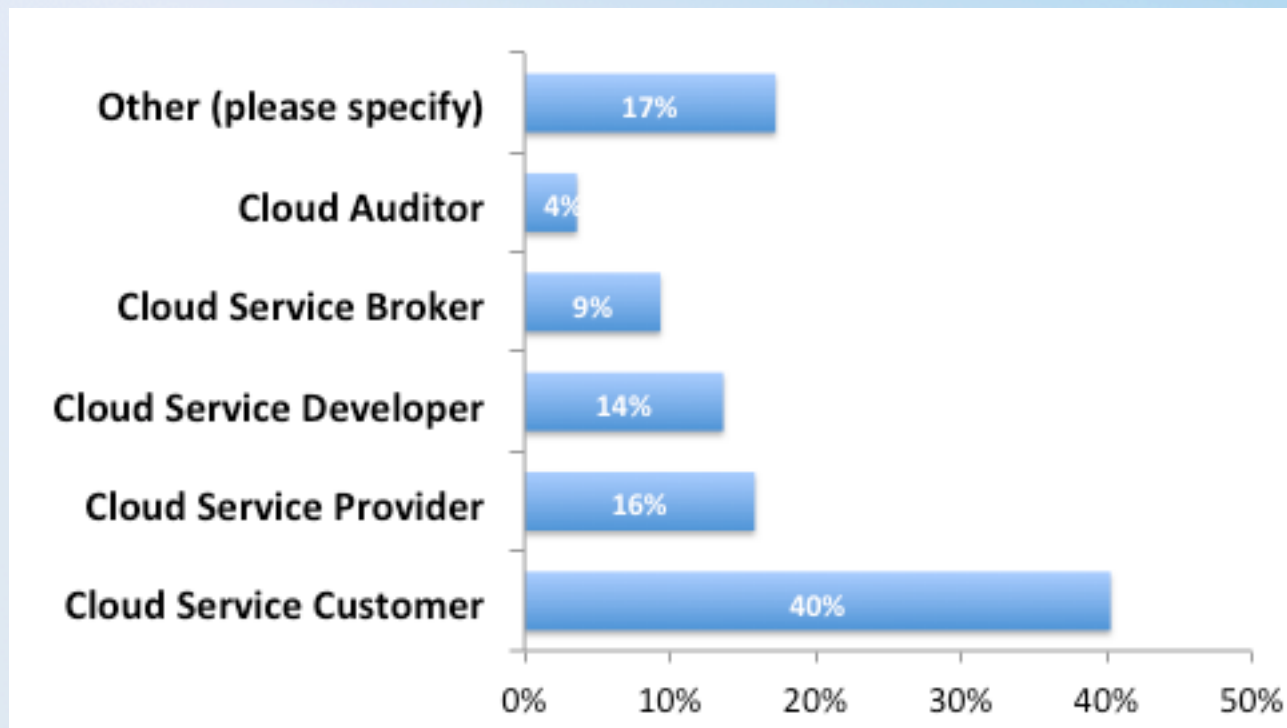
## Maturity of Cloud Computing: how critical are the following issues for your organization?



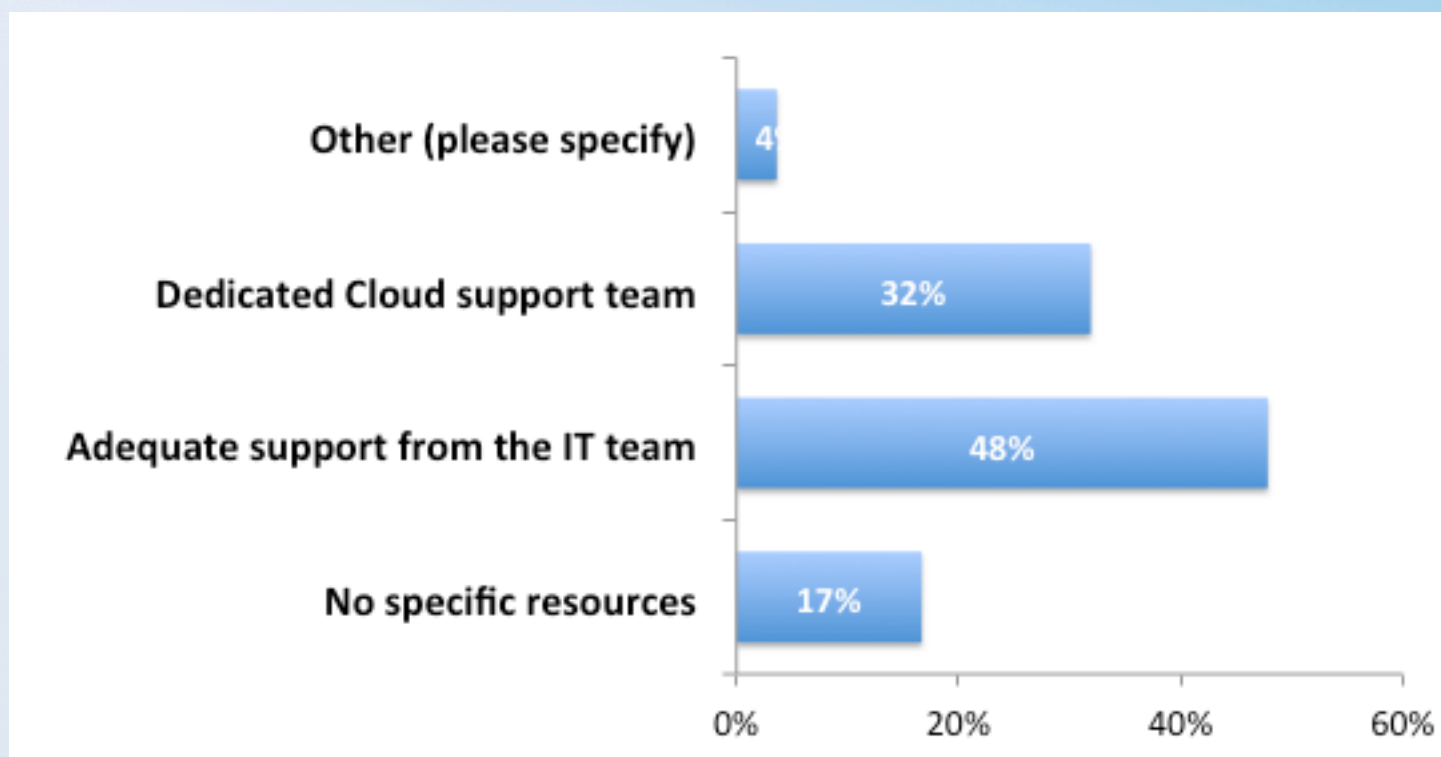
## Stage of Cloud Computing Adoption



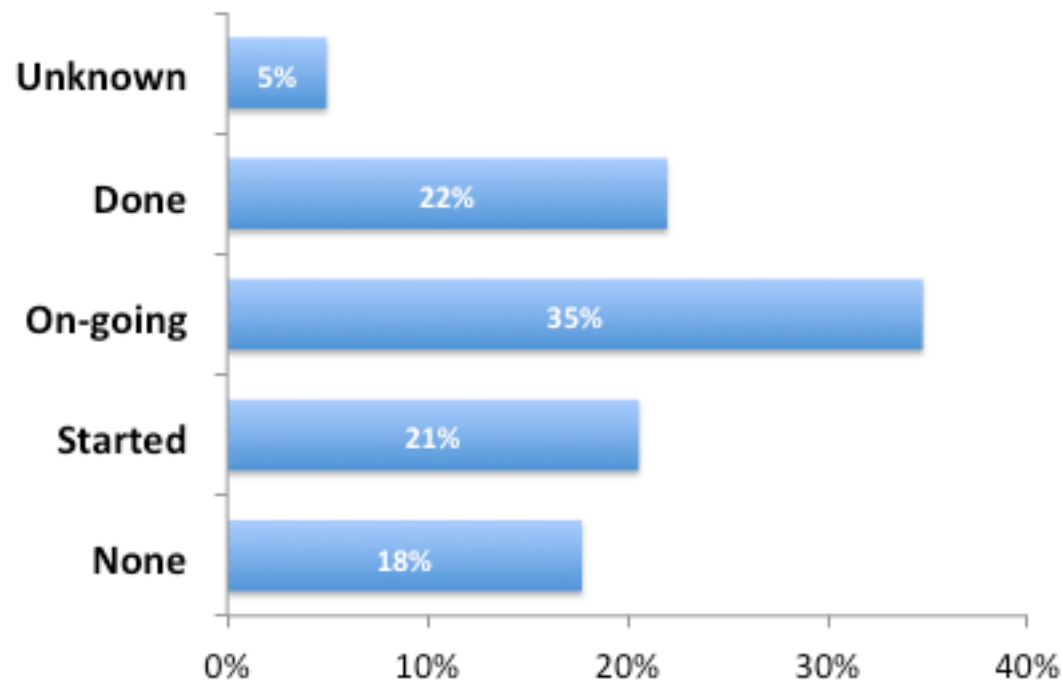
## Role of your organization in Cloud Computing



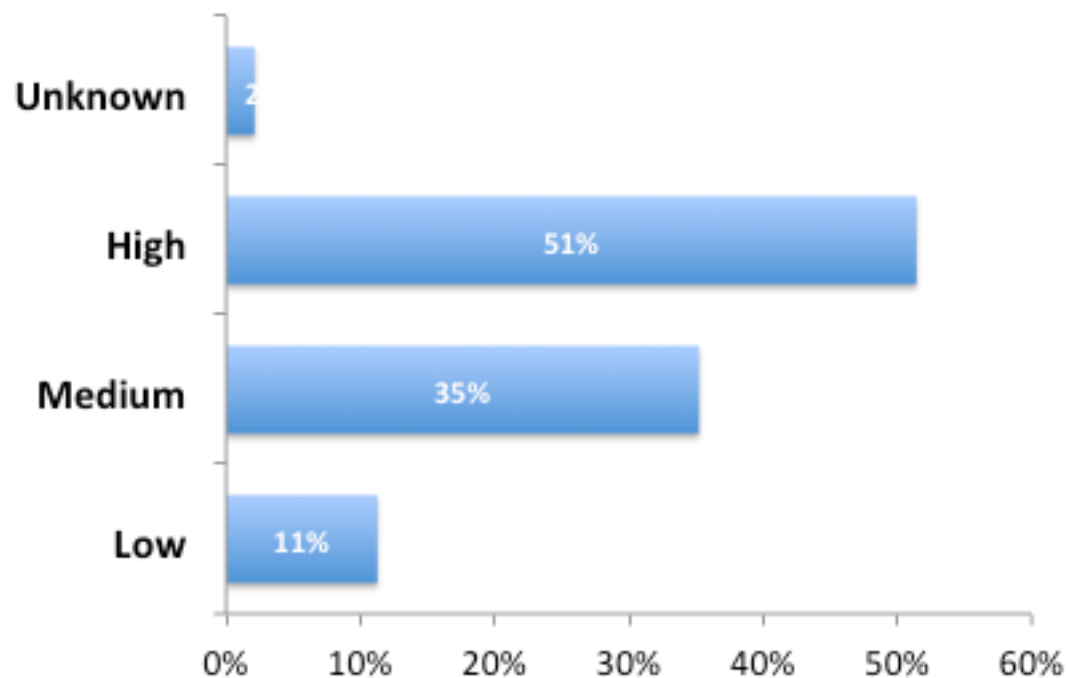
## Level of your resources and support to Cloud Computing



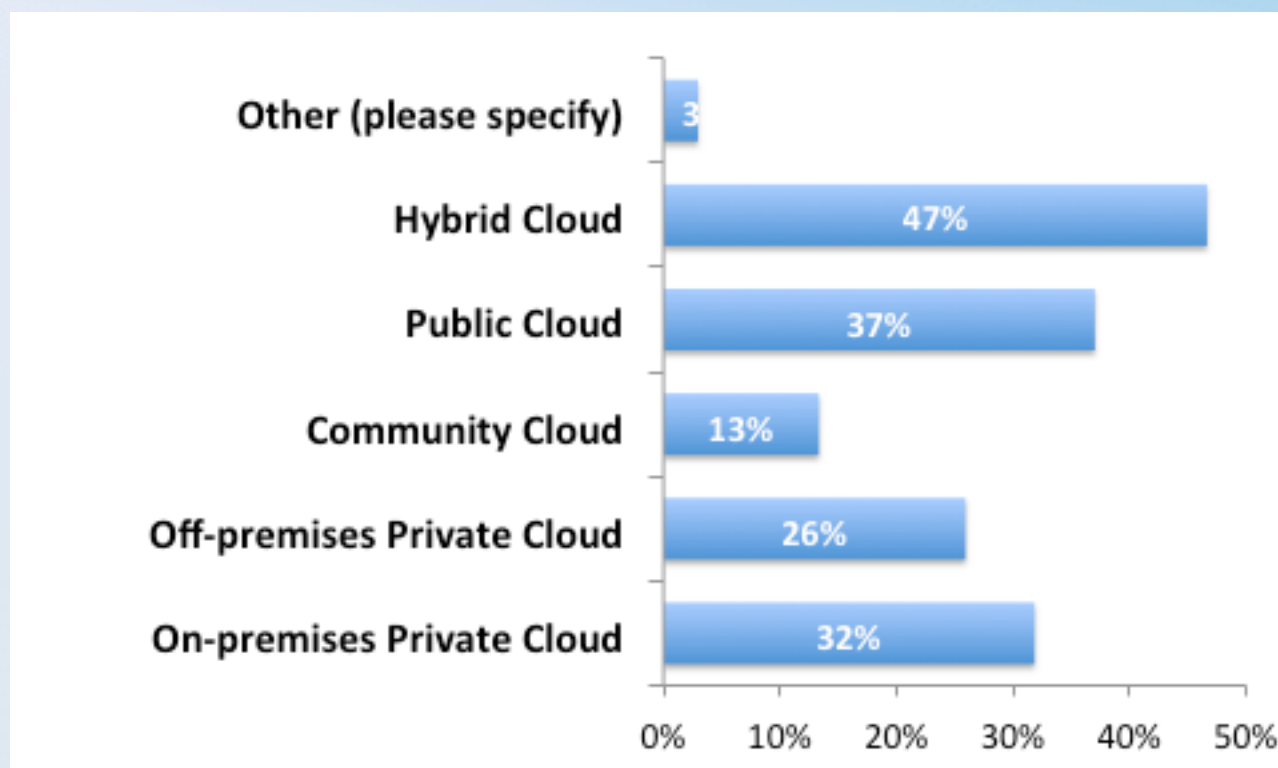
## Data Classification in your organization



## Data Security in your organization

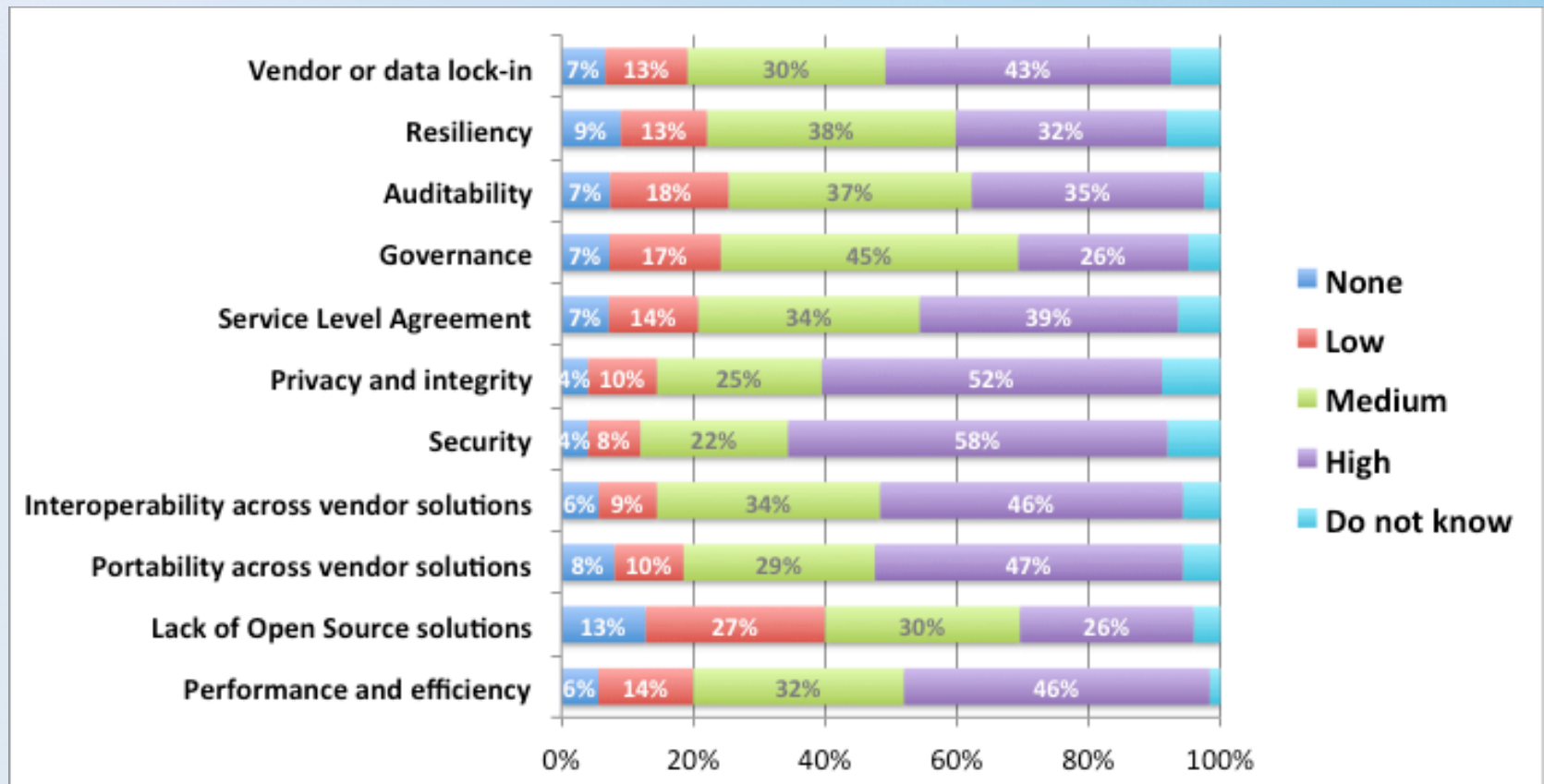


## Which Cloud deployment model seems best fit to your needs?

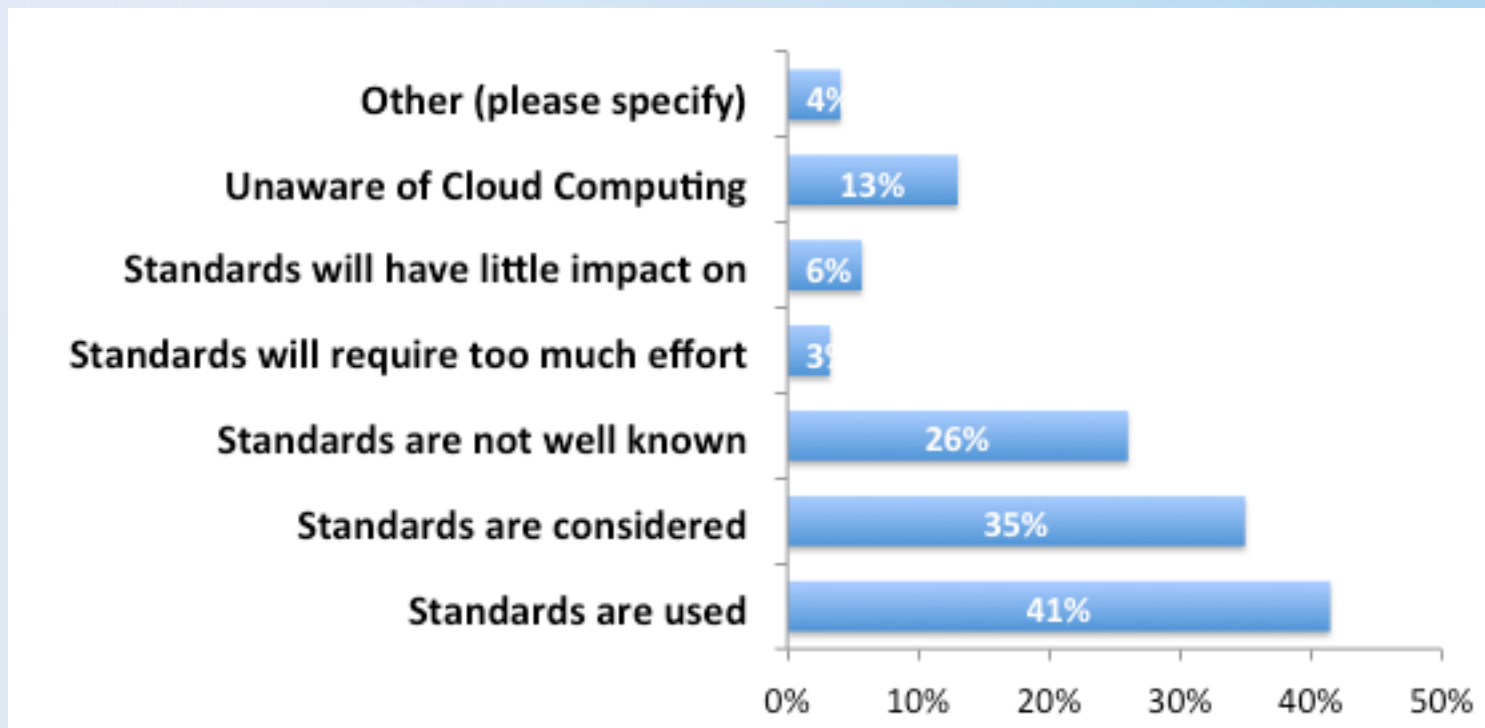


## Survey Results - Question 34

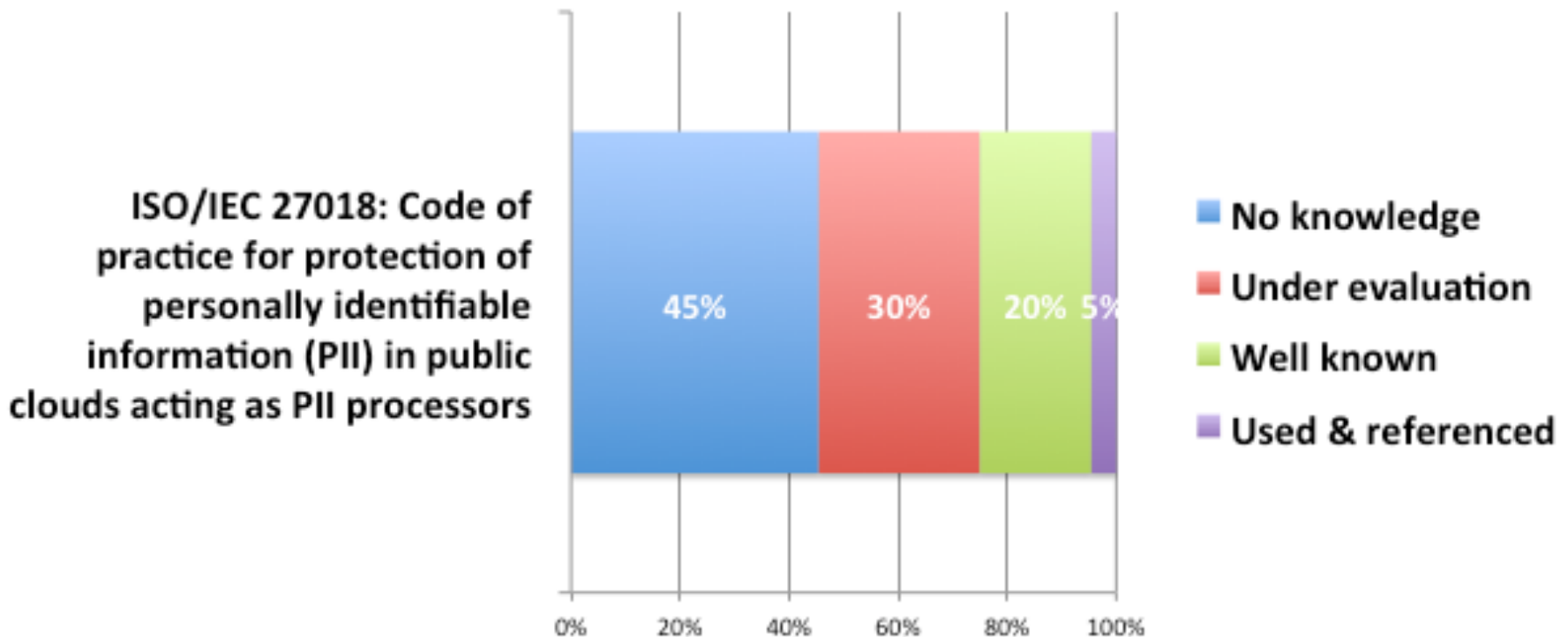
# Which impact can Cloud Computing Standards have on your organization's concerns?



## To which degree are Cloud Computing Standards considered or used in your organization?

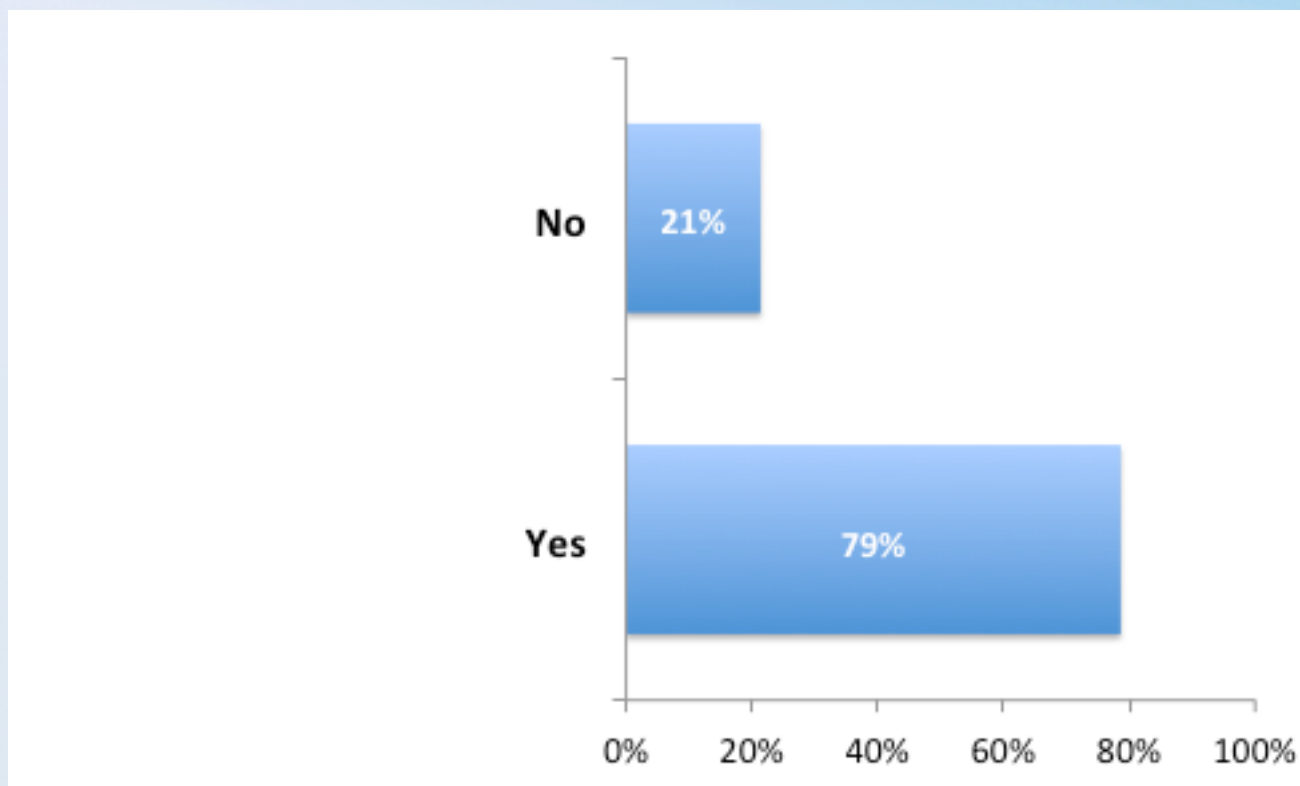


## Your organization's adoption and use of CC standards: Data protection



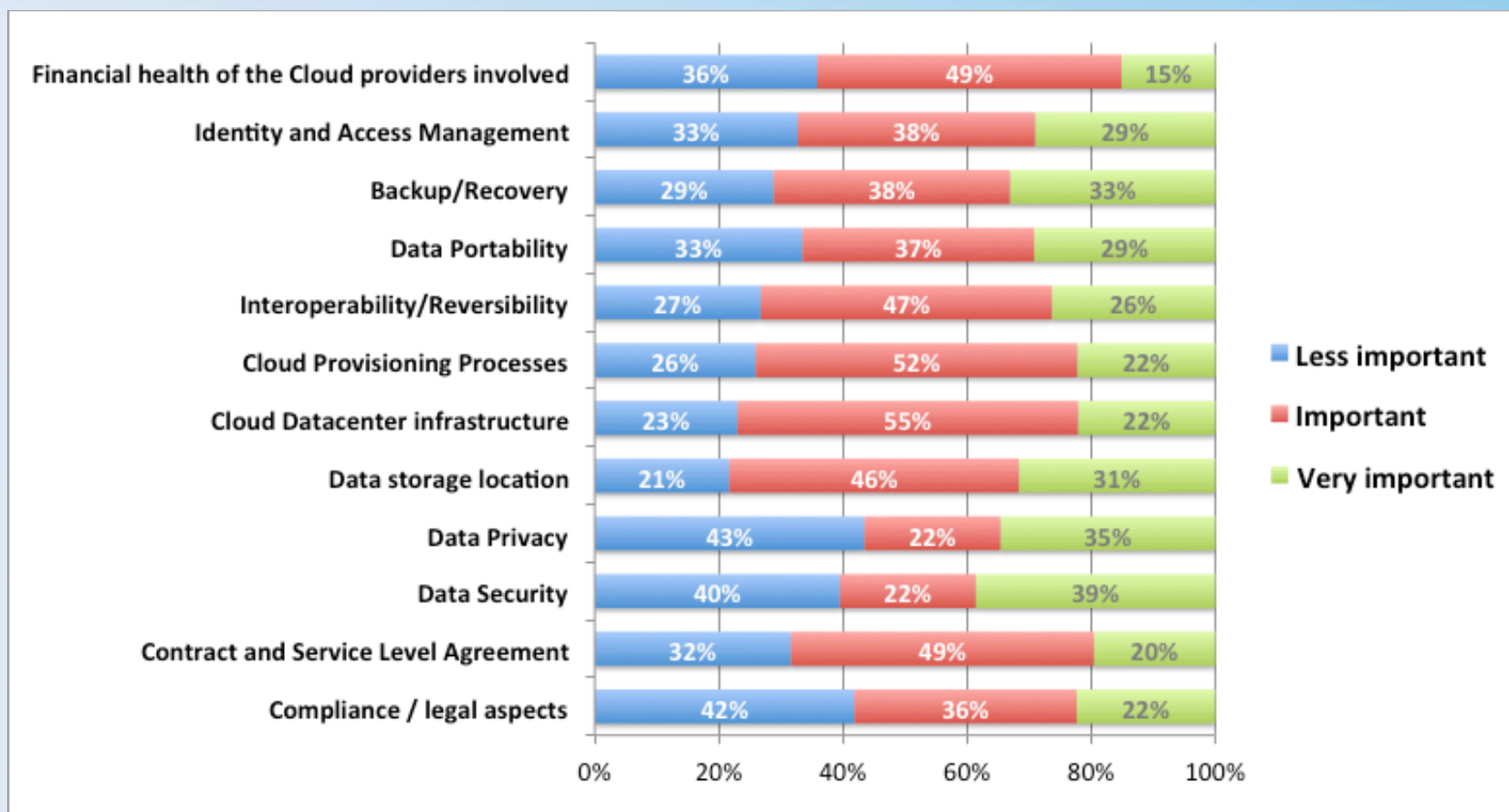
## Survey Results - Question 47

**Would you consider Cloud Certification as a possibility to improve confidence in Cloud?**



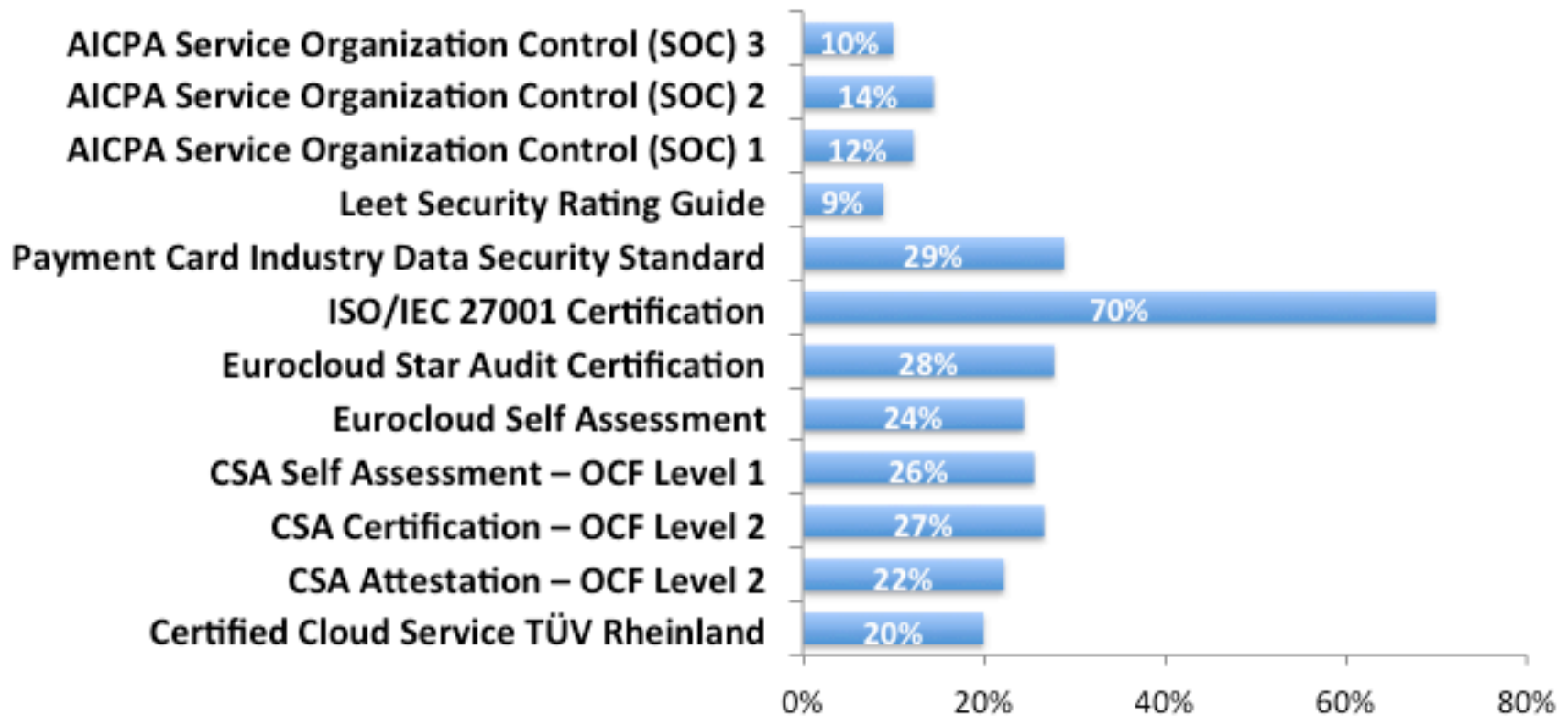
## Survey Results - Question 48

Please rank the following Cloud Certification areas according their importance



## Survey Results - Question 52

# Which of the following Cloud Certification Schemes listed in CCSL are you are aware of?





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**Some conclusions**

# General Findings

- Most positive factors
  - Reduction of CAPEX, improved business agility, faster time to market
- Main challenges
  - Compatibility with in-house systems, security, privacy/integrity
- Adoption and scope
  - A majority of the respondents (58%) have already started to adopt CC
  - None (0%) of the respondents are not planning to adopt CC
- Cloud Deployment Models and Cloud Service Categories
  - Private Cloud dominates followed by Hybrid Cloud and Public Cloud
- Standards top priorities
  - Interoperability, security, service level agreements, portability and APIs
- Cloud computing certification standards
  - Certification: a positive way to increase confidence in CS Providers

# On the road for adoption

- Users
  - Different: expectations, issues, resources, skills, perception
  - Common: must-have, must-adapt, must-prepare, must-adopt
- Adoption
  - Most organizations (incl. SMEs) have started the adaptation work
  - Security and Privacy & Data integrity are recurrent concerns
  - What to do with the legacy IT?
- Standards
  - Much support expected from standards & certification
  - More awareness & marketing of existing standards needed
  - More coverage: SLA, Security, Privacy & Integrity, Interop
    - Well, well, well, looks a bit like status at the end of 2013
- More to come on the survey
  - Public consultation and Review Workshop, October 1-2 2015, Brussels
  - Final CSC phase 2 Presentation Workshop, December 2<sup>nd</sup> 2015, Brussels

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**Thank you!**